Amendments to the Claims:

This listing of Claims will replace all prior versions and listings of Claims in the Application.

Listing of Claims:

Claims 1- 6 (Canceled)

Claim 7 (Currently amended): A method for fabricating composite thin films comprising the steps of:

(a) selecting precursor compounds and solvents and forming a chemical precursor solution;

(b) dissolving said precursor compounds in said solvents and forming a homogenous solution;

(c) hydrolyzing and polycondensating said precursor solution and stabilizing said precursor solution;

(d) depositing said chemical precursor solution onto a suitable substrate and forming a wet thin film of Ta_2O_5;

(e) drying said wet thin film;

(f) baking said thin film and removing organics present;

(g) forming a continuous Ta_2O_5 thin film on said substrate;

(h) baking said continuous Ta_2O_5 thin film deposited on substrate under ambient conditions;

(i) repeating steps (g) and (h) and obtaining a desired thickness of said thin film; and

(j) annealing said continuous Ta_2O_5 thin film deposited on said substrate at varying temperatures, times and oxygen flow rates and forming said composite thin films having high dielectric constants and low dielectric loss at microwave frequencies.

~~A method for fabricating composite thin films in claim 4, further comprising the step of drying said thin film between steps (a) and (b).~~

Claims 8 - 16 (Canceled)

17. (New): The method for fabricating composite thin films of claim 7 wherein annealing step "j" is accomplished at about 750° C.

18. (New): The method for fabricating composite thin films of claim 7 wherein annealing step "j" is accomplished in an oxygen environment.

19. (New): The method for fabricating composite thin films of claim 7 wherein annealing step "j" is accomplished in an oxygen environment at about 750° C.

20. (New): The method for fabricating composite thin films of claim 7 wherein in step "a" tantalum ethoxide and aluminum nitrate are selected as said precursor compounds.

21. (New): The method for fabricating composite thin films of claim 7 wherein in step "a" acetic acid and 2-methoxyethanol are selected as said solvents.

22. (New): The method for fabricating composite thin films of claim 7 wherein said composite thin films have an average surface roughness less than 0.3 mm.

23. (New): The method for fabricating composite thin films of claim 7 wherein said composite thin films exhibit a dense microstructure and very fine grain size.